

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017440**Date Inspected:** 27-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr.Xu Le Fung.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as North Tower lift 5 Grillage plate. The weld designations reviewed are as follows.

NSD1-TL5-3B/F-25A/B, 34A/B, 29A/B, 31A/B,

NSD1-TL5-3E/F-8A/B,

NDT Notification No-06782

This QA Inspector observed the following work in progress:

BAY 11

This QA Inspector observed ZPMC qualified welding personnel identified as 054460, 044541, Perform Shielded Metal Arc Welding (SMAW) on Lift 5 bracket stiffener. Joint identified as ND1-BRSA5-1-10A, 14A. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared

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to be in general compliance with WPS-B-T-3213-Tc-U4b.

SMAW Process Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 066326 Perform Shielded Metal Arc Welding (SMAW) on West Tower lift 5 Grillage plate. Joint identified as WSD1-TL5-4E/F-32A/B. ZPMC QC Identified as Zhao Mao Mao with Temporary welding repair report WRR-T-WR3654. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-3G (3F) Repair.

SMAW Process Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 037996 Perform Shielded Metal Arc Welding (SMAW) on West Tower lift 5 Grillage plate. Joint identified as WSD1-TL5-4B/F-16A/B. ZPMC QC Identified as Zhao Mao Mao with Temporary welding repair report WRR-T-WR3648. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-3G (3F) Repair.

SMAW Process Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 040690 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate. Joint identified as ESD1-TL5-2E/F-7A/B. ZPMC QC Identified as Zhao Mao Mao with Temporary welding repair report WRR-T-WR3665. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-3G (3F) Repair.

SMAW Process Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 040723 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate. Joint identified as ESD1-TL5-2F/F-8A/B. ZPMC QC Identified as Zhao Mao Mao with Temporary welding repair report WRR-T-WR3661. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-3G (3F) Repair.

OBG Bike path stringer plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 049220, Perform Flux Core Arc Welding (FCAW) on OBG bike path stringer plate. Joint identified as BK004A8-017-106, 107, 108, 109, 104, 105. ZPMC QC Identified as Shao Hai Long. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2113 and WPS-B-P-2112.

BAY 10

SMAW Process Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 050289, 050038, 056364, 052930 Perform Shielded Metal Arc Welding (SMAW) on 146M splice plate. Weld build up required 3~8mm on edge of 4 number plates. ZPMC QC Identified as Sun Tian Liang with Temporary welding repair report WRR-T-WR3550. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) Repair. For more information see below attached picture number 1.

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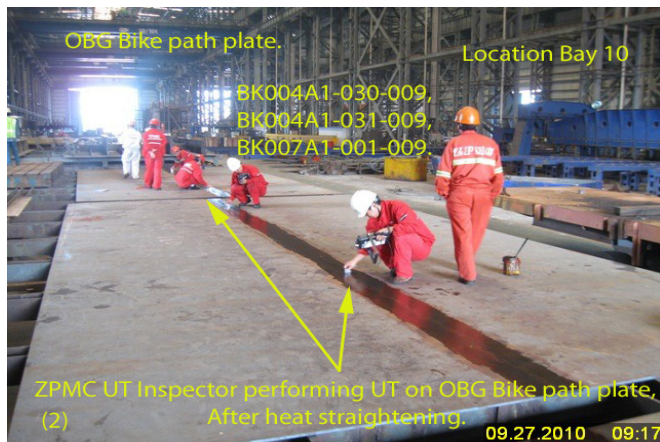
SMAW Process Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 052493 Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3F/F-4A/B. ZPMC QC Identified as Li Peng Fei with Temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-3G (3F) Repair.

Ultrasonic Testing:

This QA Inspector observed ZPMC Ultrasonic Testing Inspector, performing UT on OBG Bike path plate. Joint identified as BK004A1-030-009, BK004A1-031-009, BK007A1-001-009. For more information see below attached picture number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer